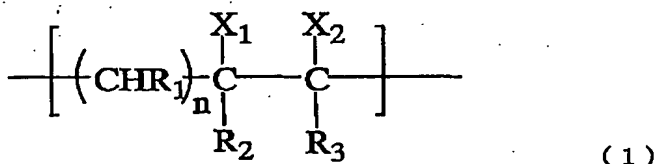


CLAIMS

1. A polymer comprising mainly structural units represented by the following general formula (1):



(wherein, n stands for an integer of from 2 to 10; X₁ and X₂ each represents a hydrogen atom, a hydroxy group or a functional group that can be converted into a hydroxy group, provided that at least one of X₁ and X₂ represents a hydroxy group or a functional group that can be converted into a hydroxy group; R₁, R₂ and R₃ each represents a hydrogen atom, an alkyl group having from 1 to 5 carbon atoms, an aryl group, an aralkyl group or a heteroaryl group, provided that plural R₁s may be the same or different), wherein the total molar amount of the terminal aldehyde group and acetal group contained in the polymer is 0.6 mol% or smaller relative to the total molar amount of the structural units represented by the formula (1).

2. The polymer according to Claim 1, wherein X₁ and X₂ each represents a hydroxy group or a functional group that can be converted into a hydroxy group.

3. The polymer according to Claim 1 or 2, wherein the functional group that can be converted into a hydroxy group is an epoxy group or a hydroxy group protected with a

protecting group.

4. The polymer according to Claim 1 or 2, wherein the functional group that can be converted into a hydroxy group is a functional group selected from an epoxy group, acyloxy groups, alkoxy groups, alkoxycarbonyloxy groups, aryloxy carbonyloxy groups, alkoxyalkyleneoxy groups and siloxy groups.

5. The process for producing a polymer according to Claim 1, comprising ring-opening, in the presence of a metal alkylidene complex having a ligand with an imidazolidine structure, a cyclic olefin including at least one cyclic olefin having a hydroxy group or a functional group that can be converted into a hydroxy group, and hydrogenating a resulting unsaturated polymer.